AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-196

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

********** AMSAT 2007 Space Symposium **********

The Wireless Association of South Hills Amateur Radio Club announces the 2007 AMSAT Space Symposium will be held at the Pittsburgh Airport Marriott Hotel on Friday, October 26 through Sunday, October 28, 2007.

The AMSAT web team has posted informational pages on the AMSAT web site. You can find the announcement with many links at:
http://www.amsat.org/amsat-new/symposium/2007/index.php

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SB SAT @ AMSAT $ANS-196.01
AO-51 Completes L/S Mode, Watch for New Modes

AMSAT News Service Bulletin 196.01
>From AMSAT HQ SILVER SPRING, MD.
July 15, 2007
To All RADIO AMATEURS
BID: $ANS-196.01

During the period of July 10 to July 12 AO-51 was in its FM repeater mode with the uplink on 1268.700 MHz and the downlink on 2401.200 MHz. Viktor, OE1VKW reported, "On July 10 AO-51 over Vienna with very strong signals!" Alan, WA4SCA reported, "AO-51 came up in VS with a 145.920 uplink at the start of the pass. A couple of minutes before LOS, it switched over to LS, and I got a couple of quick test calls in. It Sounded fine."

Starting July 13, AO-51 is in the FM repeater mode, with an uplink on 145.920 MHz and downlink on 435.300 MHz. 9K6 telemetry is on the 435.150 MHz downlink.

Next on July 24 look for AO-51 to operate with an SSB uplink via 145.880 MHz and FM downlink via 435.300 MHz.

[ANS thanks the AO-51 Operation Team for the above information]

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SB SAT @ AMSAT $ANS-196.02
Satellite Shorts From All Over

AMSAT News Service Bulletin 196.02
>From AMSAT HQ SILVER SPRING, MD.
July 15, 2007
To All RADIO AMATEURS
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+ Mineo Wakita, JE9PEL reported that JARL has been conducting tests on FO-29 when it is over Japan. Telemetry analysis can be found on-line at: http://www.ne.jp/asahi/hamradio/je9pel/fo29test.htm

+ AMSAT-UK International Space Colloquium 2007 is coming soon. The 22nd International Space Colloquium at the University of Surrey, Guildford, England from Friday 20th to Sunday 22nd July. The event is open to all. Either day passes or full packages comprising overnight accommodation and meals at the University are available. There is an online booking service for PayPal, Visa and Master Card payments. For further details see http://www.uk.amsat.org/Colloquium/

+ AMSAT received the sad news that Tom McDaniel, N0NTX passed away on Monday July 2nd, 2007. Services are tentatively planned for Monday, July 9th. Tom was active on the satellites.

+ The deadline for submitting technical papers for presentation at the 26th Annual ARRL and TAPR Digital Communications Conference is July 31, 2007. The conference will be held September 28-30, 2007 in Hartford, Connecticut. Please send papers to:
Maty Weinberg
ARRL
225 Main St
Newington, CT 06111
or you can make your submission via e-mail to: maty@arrl.org

+ The deadline for receiving your submission (either email or postal mail) for AMSAT Field Day is Monday, July 16, 2007 at 11:59 P.M. CDT. E-mail to kk5do@arrl.net or postal mail to Bruce's callbook address.

+ Former AMSAT Board Member, Harry, JA1ANG, has been in the hospital for several months. If you wish to send him a card the address is: Harry Yoneda, 15-1305 Shimouma, 2-Chome-26, Setagaya-ku Tokyo 154 Japan.

+ Ed Long, WA4SWJ, AMSAT Journal Editor reminds the membership that the time is already upon us to begin submitting articles for the July/August issue. You can submit your article via the journal@amsat.org e-mail address.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-196.03
NASA Makes Saturn Radio Transmission Recording Available

AMSAT News Service Bulletin 196.03
>From AMSAT HQ SILVER SPRING, MD.
July 15, 2007
To All RADIO AMATEURS
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NASA has made available a recording from the Cassini spacecraft of Saturn's intense radio emissions called Saturn kilometric radiation.

The Cassini spacecraft began detecting these radio emissions in April 2002, when Cassini was 374 million kilometers (234 million miles) from the planet, using the Cassini radio and plasma wave science instrument, which provided the first high resolution observations of these emissions, showing an amazing array of variations in frequency and time.

The complex radio spectrum with rising and falling tones, is very similar to Earth's auroral radio emissions. These structures indicate that there are numerous small radio sources moving along magnetic field lines threading the auroral region.

For additional information and to hear the recording visit:
http://www.nasa.gov/mission_pages/cassini/multimedia/pia07966.html

[ANS thanks 'The Daily Galaxy' and NASA for the above information]

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SB SAT @ AMSAT $ANS-196.04
High Efficiency RF Linear Amplifier Design Proposed for Eagle

AMSAT News Service Bulletin 196.04
>From AMSAT HQ SILVER SPRING, MD.
July 15, 2007
To All RADIO AMATEURS
BID: $ANS-196.04

AMSAT members Marc Franco, N2UO and Allen Katz, K2UYH have designed a VHF, high-efficiency, class-E, RF power amplifier with a DC to RF efficiency of 86.8%. Their innovative design is based on silicon carbide (SiC) metal-semiconductor field effect transistors, or MESFETs.

The design was presented by Marc in a paper at the IEEE International Microwave Symposium in Hawaii. It is now available on-line: http://www.cree.com/products/wireless_docs.htm titled "Class-E Silicon Carbide VHF Power Amplifier" (June 5, 2007)

The final amplifier efficiency was measured at around 86 to 88% with this number holding quite well at almost any drain voltage or output power. This type of amplifier is under consideration for the envelope elimination and restoration linear amplifier planned for the AMSAT Eagle satellite.

[ANS thanks Marc, N2UO for the above information]

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SB SAT @ AMSAT $ANS-196.05
ARISS Status Report for the Week of July 9, 2007

AMSAT News Service Bulletin 196.05
>From AMSAT HQ SILVER SPRING, MD.

July 15, 2007
To All RADIO AMATEURS
BID: $ANS-196.05

1. School Contacts

Maples Collegiate in Winnipeg, Manitoba, Canada had an ARISS contact on Thursday, July 12. The school would like the ARISS contact to be part of the Win-Cube Project in Manitoba. Win-Cube is an innovative science and engineering project that includes students from 10 high schools in Manitoba who will participate in the design, construction, launch, and communication with a pico-satellite in low earth orbit. ARISS will provide students involved in the Win-Cube project with a real application of classroom learning with experiences like the ISS orbital elements and its relation to the availability of ground to orbit commu-nication. Students with their amateur radio licenses performed an active role in establishing and maintaining communication with the ISS.

Arnold Palmer Hospital for Children in Orlando, Florida has been slated for an ARISS contact on Tuesday, July 17 via the telebridge station W6SRJ in California. The hospital plans on involving children, who have been hospitalized long term, with this contact. It will showcase the medical advancements made through space science, available due to NASA and its research. An ARISS team member will give a presentation to the children on Amateur Radio on the International Space Station and an astronaut will also be invited to speak to the children. Lithographs will be distributed and children will design posters in anticipation of the contact.

2. Challenger Learning Center Experiences Successful ARISS Contact

On Saturday, July 7, children visiting the Challenger Learning Center of Alaska in Kenai experienced an ARISS contact. Clay Anderson, KD5PLA, answered 12 questions posed to him by the participating students and a few more from the audience. A crowd of approximately 50 people was expected to attend.

3. ARISS TIM

An ARISS Technical Interchange Meeting (TIM) was held the week of July 9-13, in Houston. Topics of discussion included ARISS radio systems, SuitSat-2, and education issues.

4. Amateur Radio Newsline Article on ARISS Member

Amateur Radio Newsline posted a story about ARISS member Tony Hutchison, VK5ZAI, who was named to the Wireless Institute of Australia (WIA) board position of Australian National Coordinator for ARISS. Tony had recently given a talk on the ARISS education program to the board members.

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.